

Claims

[001] Method of selective etching comprising:

- providing a first material selected from a group A on a substrate
- providing a second material selected from a group B on a substrate
- selectively etching said first material with a selectivity of at least 2:1 towards said second material by a liquid etchant flowing across the substrate surface at a flow sufficient fast to generate a mean velocity v parallel to the substrate's surface of minimum 0,1m/s

[002] Method of claim 1 wherein said liquid is dispensed onto the substrate in a continuous flow and spread over the substrate's surface

[003] Method of claim 2 wherein the point of impact of the liquid stream is moved across the surface of the substrate in a time sequence.

[004] Method of claim 2 wherein said liquid is dispensed at a volume flow of at least 0,05 l/min (especially at least 0,5 l/min).

[005] Method of claim 1 wherein said substrate is rotated while exposed to said liquid etchant.

[006] Method of claim 1 wherein group A comprises materials with a high dielectric constant.

[007] Method of claim 1 wherein group B comprises silicon dioxide, silicon.

[008] Method of claim 1 wherein the second material is silicon dioxide and the liquid etchant comprises fluoride ions.

[009] Method of claim 1 wherein said first material is subjected a pretreatment in order to damage the material's structure.

[010] Method of claim 9 wherein said pretreatment is an energetic particle bombardment.

[011] Method of claim 1 wherein said liquid etchant is selected from a group comprising

- a solution comprising fluoride ions and an additive for lowering dielectric constant of said solution,
- an acidic, aqueous solution comprising fluoride ions.
- an acidic, aqueous solution comprising fluoride ions and an additive for lowering dielectric number e.g. an alcohol.

[012] Method of claim 11 wherein said liquid etchant comprises an analytical concentration of less than 0,01 mol/l of fluoride ions, wherein said analytical c on-

centration is calculated as F.

[013] Method of claim 1 wherein said liquid etchant comprises fluoride ions and has a pH value of below 3.